14 Prove the identity: **(5 marks)**

$$(\csc\theta - \sin\theta)\tan\theta = \frac{\sin 2\theta}{2\sin\theta}$$

LEFT SIDE	RIGHT SIDE

15 Prove the identity: **(5 marks)**

$$\frac{\sin x}{1-\sin x} - \frac{\sin x}{1+\sin x} = 2\tan^2 x$$

LEFT SIDE	RIGHT SIDE

16 Prove:

(5 marks)

$$\frac{\cot\theta}{\sin\theta - \csc\theta} = -\sec\theta$$

LEFT SIDE	RIGHT SIDE

17 Prove the identity:

(5 marks)

$$\frac{\cos\theta + \cot\theta}{1 + \sin\theta} = \cot\theta$$

LEFT SIDE	RIGHT SIDE

18 Prove the identity: **(4 marks)**

$$\frac{\cos x + \cot x}{\sec x + \tan x} = \cos x \cot x$$

LEFT SIDE	RIGHT SIDE

19 Prove the identity: **(4 marks)**

$$\tan\theta\cos 2\theta + \tan\theta = \sin 2\theta$$

LEFT SIDE	RIGHT SIDE

20. Prove the identity:

$$\csc\theta\sin 2\theta - \sec\theta\cos 2\theta = \sec\theta$$

(4 marks)

LEFT SIDE	RIGHT SIDE

21 Prove the identity:

$$\frac{1-\cos 2x}{\sin 2x} = \frac{1+\tan x}{1+\cot x}$$

(4 marks)

LEFT SIDE	RIGHT SIDE

22 Prove the identity. **(5 marks)**

$$\cos 2x = \frac{\cot x - \sin 2x}{\cot x}$$

LEFT SIDE	RIGHT SIDE

23 Prove the identity: **(5 marks)**

$$\frac{\tan x(\cos x + \cot x)}{\sec x + \tan x} = \frac{\sin x \sin 2x}{2 - 2\cos^2 x}$$

LEFT SIDE	RIGHT SIDE

24 Prove the identity: **(5 marks)**

$$\frac{\tan x}{\sec x + 1} = \frac{2\cos x - 2\cos^2 x}{\sin 2x}$$

LEFT SIDE	RIGHT SIDE